MATH 106 Integral Calculus: Weekly Course Details
Book: **Calculus: The Classic Edition (Fifth Edition), by Earl W. Swokowski.**

Chapter 5:	**Integrals**	**pages: 240-301**
Week 1	Antiderivatives and Indefinite Integrals	
Week 1	Change of Variables in Indefinite Integrals	
Week 1	Summation Notation and Area	
Week 2	The Definite Integral.	
Week 2	Properties of the Definite Integral	
Week 3	The fundamental Theorem of Calculus	
Week 3	Numerical Intergration: Including also the Error estimate.	
Chapter 7:	**Logarithmic and Exponential Functions**	**pages 381-414**
Week 4	The Natural Logarithmic Function	
Week 4	The Natural Exponential Function	
Week 4	Intergration	
Week 4	General Exponential and Logarithmic Functions.	
Chapter 8:	**Inverse Trigonometeric and Hyperbolic Functions**	**pages 424-453**
Week 5	Inverse Trigonometric Functions	
Week 5	Derivatives and Integrals	
Week 5	Hyperbolic Functions	
Week 5	Inverse Hyperbolic Functions.	
Chapter 9:	**Techniques of Integration**	**pages 455-488**
Week 6	Integration by parts	
Week 6	Trigonometric Integrals	
Week 7	Trigonometric Substitutions	
Week 7	Integrals of Rational Functions	
Week 8	Integrals Involving Quadratic Expressions	
Week 8	Miscellaneous Substitutions	
Chapter 10:	**Indeterminate Forms and Improper Integrals**	**pages 491-517**
Week 9	Indeterminate Forms	
Week 9	Integrals with Infinite Limits of Integration	
Week 9	Integrals with Discontinuous Inegrands	
Chapter 6:	**Application of the Definte Integral**	**pages: 303-328 and 333-342**
Week 10	Area	
Week 10	Solid of Revolution	
Week 11	Volumes by Cylindrical Shells	
Week 11	Arc Length and surfaces of Revolution	
Chapter 13:	**Plane Curves and Polar Coordinates**	**pages 641-674**
Week 12	Plane Curves	
Week 12	Tangent Lines and Arc Lenght	
Week 13	Polar Coordinate	
Week 14	Intergrals in Polar Coordinates	
Week 15	**Revision**	